

# RU-58841 Overview

## Why We Need It

RU-58841 is a non-steroidal topical anti-androgen developed for the treatment of androgenic alopecia (male pattern baldness) and acne. Unlike anabolic compounds or SARMs, RU-58841 works locally on the scalp or skin to block dihydrotestosterone (DHT) from binding to androgen receptors, thereby reducing hair loss and sebum production without suppressing systemic hormones. It remains investigational and is not FDA-approved for clinical use.

## Mechanism of Action

RU-58841 binds directly to androgen receptors in the skin, particularly in the scalp and sebaceous glands, where it blocks the action of DHT—the primary hormone responsible for hair follicle miniaturization in androgenic alopecia.

## Key mechanisms include:

- Topical AR antagonist, preventing DHT from binding locally
- No conversion to active metabolites, limiting systemic hormonal interference
- Does not reduce circulating testosterone or DHT, unlike finasteride
- This makes RU-58841 an attractive candidate for localized androgen blockade without systemic hormonal suppression.

## Functions and Benefits

- Reduces hair loss caused by DHT in androgen-sensitive follicles
- May promote hair regrowth when used consistently
- Minimizes acne by reducing sebaceous gland stimulation
- Topical application with low systemic absorption
- No estrogenic rebound, unlike 5-alpha reductase inhibitors
- No known suppression of testosterone production

## Medical-Grade Dosing

Dose: 50–100 mg of 5% solution per application (typical concentration)

Frequency: 1–2 times daily

Cycle Duration: Ongoing use; effects diminish if discontinued

Post-Cycle Therapy (PCT): Not required (non-systemic, non-suppressive)

Liver Support: Not required

## Pharmacology and Bioavailability

- Topically bioavailable, designed for skin-specific action
- Does not enter systemic circulation in significant amounts
- No systemic hormonal suppression seen in preclinical models
- Research-use only, not approved for clinical treatment

## Administration Guidelines

- Apply directly to scalp or affected skin area
- Allow to fully dry before applying additional hair or skin products
- Avoid contact with mucous membranes or open wounds
- Consistency is key; daily use required for long-term benefits

## Conclusion

RU-58841 is a topical anti-androgen research compound offering localized DHT blockade for hair loss and acne treatment without systemic hormonal side effects. Unlike oral DHT inhibitors, RU-58841 allows for targeted androgen control while preserving libido, testosterone, and hormonal balance. Though non-approved and investigational, it remains a popular research agent for those exploring DHT-sensitive conditions.

